

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 November 2002 (07.11.2002)

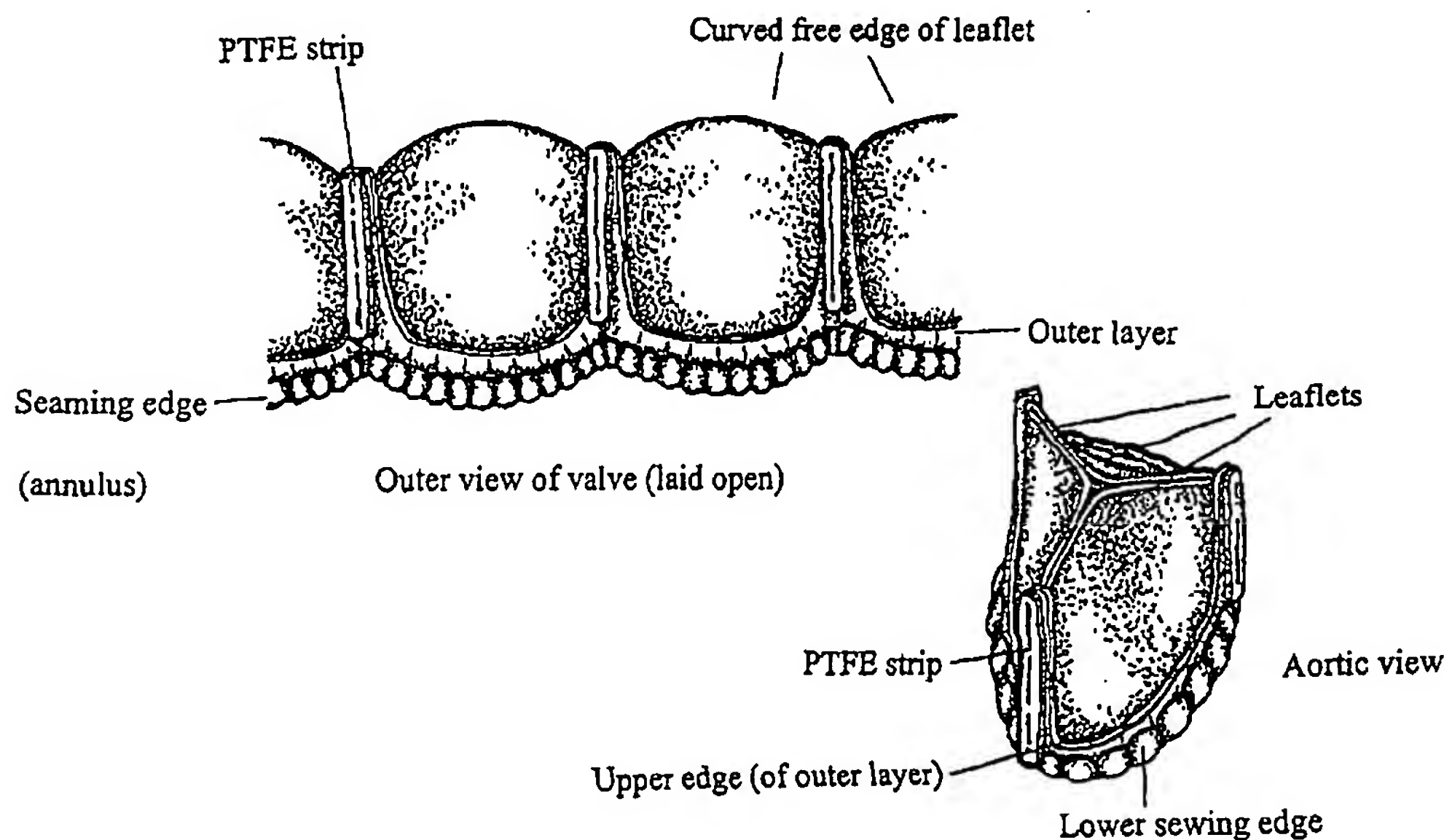
PCT

(10) International Publication Number
WO 02/087474 A1

- (51) International Patent Classification⁷: A61F 2/24 (74) Agents: COPSEY, Timothy, Graham et al.; Kilburn & Strode, 20 Red Lion Street, London WC1R 4PJ (GB).
- (21) International Application Number: PCT/GB02/01998
- (22) International Filing Date: 1 May 2002 (01.05.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0110639.2 1 May 2001 (01.05.2001) GB
0110637.6 1 May 2001 (01.05.2001) GB
- (71) Applicant (for all designated States except US): **IMPERIAL MEDICAL DEVICES LIMITED** [GB/GB]; 90 Fetter Lane, London EC4A 1JP (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **KHAGHANI, Asghar** [GB/GB]; 13 Deep Acres, Chesham Bois, Amersham, Buckinghamshire HP6 5NX (GB).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report

[Continued on next page]

(54) Title: VALVE PROSTHESIS



(57) Abstract: A heart valve prosthesis having a plurality of leaflets encircling a flow opening and of size to coapt to form a valve, each leaflet having a free outflow edge at the outflow end of the leaflet, wherein the free outflow edge forms a convex (relative to the leaflet) curve in the plane of the leaflet, and methods for forming such a valve. A stentless heart valve prosthesis suitable for replacement of the aortic root comprising an outer wall and a plurality of leaflets positioned inside the outer wall, encircling a flow opening and of size to coapt to form a valve, wherein the outer wall and leaflets are formed from material other than natural valve material, and methods of forming such a valve prosthesis.

WO 02/087474 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.